

## **Position Description**

### **Air Resource Advisor (THSP)**

#### **Introduction**

This position is an expertise in air quality and smoke dispersion science in order to assess wildland fire smoke risks and impacts. This expertise includes: monitoring, modeling interpretation, data analysis, and regulatory compliance and computer simulation modeling. During wildfire events when smoke is a concern, an Air Resource Advisor's objective is to provide timely smoke impact and forecast information and messaging that are based on best available science. An Air Resource Advisor works with multiple agencies to address public health concerns, smoke risk to transportation safety, and firefighter exposure.

#### **Major Duties**

Air Resource Advisor addresses specific wildland smoke needs at Incidents or at various levels within the Geographic Area Coordination Center jurisdiction. The Air Resource Advisor monitors air quality to determine effects on public and firefighter health and safety. Working as a technical specialist (THSP) for the Incident Management Team (IMT) either solely or supervising other Air Resource Advisors -THSP (Task Group) carry out air quality monitoring and reporting on incidents. At times an Air Resource Advisor can work directly with State Air Regulators or Health Departments in determining impacts from smoke and associated air pollutants. An Air Resource Advisor's work activities necessitate interactions with many different IMT members. This usually includes FBAN and IMET in estimating fuel consumption and interpreting weather forecasts in order to develop smoke production estimates and identification of smoke dispersion impact areas. Works directly with Liaison, Public Information and Safety Officers in developing smoke mitigation plans to address firefighter exposure, downwind impacts to smoke sensitive areas and transportation corridor safety. Transportation corridor assessments can include briefings for State and Local law enforcement, Department of Transportation and Emergency Management agencies on predictions of nighttime smoke impacts. This facilitates a coordinated and integrated multiple agency response for highway hazards. Smoke intelligence also provides information in determining optimal burnout windows for Operations Section.

Develop a schedule that is based on incident management objectives in order to provide timely and accurate smoke intelligence that addresses risk and supports decisions.

Establish, coordinate and maintain appropriate contact within IMT whereby Command and General Staff and other key IMT positions are supported. Participate at planning and command and general staff meetings and others as needed.

Develop a network & routinely collect and exchange smoke information within IMT (e.g., Operations personnel, Meteorologist, Fire Behavior Analyst, Safety Officer, Liaison Officer, Public Information, Field Observer, Fire Effects and other specialists pertinent to the incident) and partnering agencies to assure accurate information is disseminated (e.g. public meetings, Inciweb, smoke blogs, etc.,)

Produce products and provide support for decision making and planning for time specified periods (e.g., input for: Incident Action Plan [IAP], wildland fire decision support – WFDSS documentation, burnout operations addressing optimum smoke dispersion, etc.,)

Interpret weather forecasts, fire behavior predictions and smoke dispersion prediction models, in the development of decision support products to; *Evaluate smoke management impacts, Incident Site Specific: Smoke Drift Maps, Transportation, EBAM/ESAMPLER Station observations Corridor, Visibility Statements, NWS NOAA Radio Statements & Special Weather Statements (FPS), Smoke Mitigation Plan or appropriate product; Cumulative Wildfires Effects: Air Quality Index projections, Plume Projection Maps or appropriate products; Obtain and/or provide smoke dispersion predictions concerning road visibility, super-fog events, downwind smoke sensitive areas or population centers*

Recognize and notify incident personnel of special conditions that promote extreme smoke conditions for firefighter personnel, transportation corridors and downwind smoke sensitive areas.

Monitor smoke emissions for health, safety, and transportation visibility impairment as required by the incident. Monitor smoke column and dispersion. *(use of FOBS, DIVS, SOFR, etc.,)*. Recognize emission problems and recommend applicable mitigation measures. *Deployment of fire cache ESAMPLERS, EBAMS, CO dosimeters (communities, base and spike camps)*

Maintain communications (e.g., air quality regulators, National Weather Service, weather observers, lookouts). *Coordinate Special Weather Statements, Dense Fog Advisory, NOAA Radio Broadcast, & AQI Maps for AQ agencies.*

*Participate in public meetings to address current and projected air quality impacts.*

Provide public safety, law enforcement, emergency management and state transportation departments with projected smoke impacts to alert and warn motorists of smoke and unsafe driving conditions.

**Factor 1 – Knowledge Required by the Position**

Air Resource Advisors requires expert knowledge of fire behavior, fuels, fire emissions, meteorology, air quality impacts and mitigation. The position involves high skill level in running and interpreting models for predicting smoke emissions, smoke dispersion and downwind concentrations levels.

**Factor 2 – Supervisory Control**

**Factor 3 – Guidelines**

**Factor 4 – Complexity**

**Factor 5 – Scope and Effect**

**Factor 6 – Personal Contacts**

**Factor 7 – Purpose of Contacts**

**Factor 8 – Physical Demands**

**Factor 9 – Work Environment**

**Factor 10 – Position Requirement**

Individuals filling this position have higher level educational degrees and/or have gone through extensive training, acquiring extensive experience in air quality and/or smoke management. An Air Resource Advisor is qualified to be a lead instructor for 400 and 500 level fire courses (i.e., RX 410, M-580, M-581, etc.) and possesses experience and skill necessary to work directly with State and EPA Air Regulators.